

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A variant archaeal family B DNA polymerase having a V93 substitution modified amino acid sequence of a wild-type archaeal family B DNA polymerase amino acid sequence, the modified sequence substitution being in the amino-terminal amino acids that comprise a uracil-binding pocket in the wild-type polymerase whereby the variant polymerase has reduced affinity for uracil than the wild-type polymerase.
2. (Cancelled)
3. (Currently Amended) The variant archaeal family B DNA polymerase according to claim 1 having a modified amino acid sequence of wherein the wildtype family B DNA polymerase is Pyrococcus furiosus DNA polymerase (Pfu-Pol).
4. (Currently Amended) The variant archaeal family B DNA polymerase according to claim 3 wherein the V93 substitution is in a highly conserved region of the uracil-binding pocket having modifications in amino acids 1-40 or amino acids 78-130.
5. (Currently Amended) The variant archaeal DNA polymerase according to claim 4 of SEQ ID NO.2 wherein the highly conserved region is Region B, having modifications to amino acids 7, 36, 37, 90-97 or 112-119.
- 6-8. (Cancelled)
9. (Currently Amended) The variant archaeal DNA polymerase according to claim 5 wherein the modification substitution is V93Q.
10. (Currently Amended) The variant archaeal DNA polymerase according to claim 5 wherein the modification substitution is V93R.
- 11-22. (Cancelled)
23. (Withdrawn) The variant archaeal DNA polymerase according to claim 1 having modifications in the amino acid motif of SEQ ID NO:33: E - I - F/Y - - Y - D.
- 24-25. (Cancelled)
26. (Currently Amended) A kit useful for polymerase chain reactions comprising a variant archaeal family B DNA polymerase as defined in claim 1.

27. (Previously Presented) The kit of claim 26, further comprising DNA to be amplified, free bases, primers and combinations thereof.